leading edge 408 to the opening 407 must allow for a smooth transition for the sample 230 to transfer from a flat state to the bent and folded state which occurs during the protrusions. Thus, it is preferred that the opening 407 is constructed of a smooth material or coated with a smooth material (e.g., a plastic layer, a coating, or the like). Although the openings 407 can be any shape and/or size, it is preferred that they are funnel-shaped or otherwise a rounded or a tapered periphery with a diameter at the top of each funnel that is twice of the bottom diameter, and with the height of the sloped section at least equal to the height of the straight section. For examples of other preferred embodiments of the openings 407 that may be used during fabric handle screens, see Fig. 3C-J. Other variations or combinations of such structures are also possible. The through-holes 406 can also be any shape or size as long as they do not restrict or inhibit the protrusions of the array 230 by the probes 104. Furthermore, depending on the direction of the protrusions, the first plate 402 may be placed above the second plate 404 with its openings 407 as shown in Fig. 3A, or vice versa, as shown in Fig. 3B.

B1 A1 end

On Page 10, line 29, please replace "(m" with -- mm -- and on Page 10, line 20, please replace "housing 116" with -- housing 117 -- such that the clean version of the paragraph reads:

Sub B2 A2 cont'd

The PDMA 100 includes at least one actuator for moving the probes 104 and the samples 230 in relation to each other. In one preferred embodiment, the actuators are attached to the probes 104 and the samples 230 remain stationary. In another preferred embodiment, the actuators are attached to the sample holder 102 and the probes remain stationary. In yet another preferred embodiment, both the probes 104 and the sample holder 102 have actuators attached allowing them to both become non-stationary. In an exemplary preferred embodiment, the PDMA 100 includes first 110 and second 112 translation actuators for displacing the array 230 in a direction normal 114 to surfaces containing the array 230 and the ends 116 of the probes 104. The first translation actuator 110, which is attached to the sample holder 102 via a housing 117 that surrounds the second translation actuator 112, provides relatively coarse displacement of the sample holder 102. A useful first

translation actuator 110 includes a motorized translation stage available from POLYTEC PI under the trade name M-126 Translation Stage, which has a translation range of 25 mm and a resolution of 0.1 μm. The second translation actuator 112, which is attached directly to the sample holder 102, provides relatively fine displacement of the sample holder 102. A useful second translation actuator 112 includes a preloaded piezoelectric stack available from Polytec PI under the trade name P-753 LISA Linear PZT Stage Actuator, which has a translation range of 30 mm and can provide a 100-N pushing force and a 20-N pulling force. The PDMA 100 typically controls the first 110 and second 112 translation actuators using a DC motor controller and an amplifier/position servo controller, respectively, which are linked to a suitable general-purpose computer (not shown). In an alternative embodiment, the first 110 translation actuator is mounted on an x-y translation stage (not shown), which allows movement of the sample holder 102 in a direction substantially parallel to the surfaces containing the array 230 and the ends of the probes 104. This latter embodiment is useful when the sample holder 102 must be moved laterally to align different groups of array samples 230 with the probes 104 during screening—i.e., when the PDMA employs fewer probes 104 than samples in the array 230 and the probes 104 are stationary.

B2
A2 end

On Page 15, line 28, please replace "sheet 272" with -- sheet 270 -- and on page 15, line 29 please delete the reference numeral "278" such that the clean version of the paragraph reads:

B3 Sub
A3 cont'd

Fig. 7 and Fig. 8 provide further details of the sensors 106 and sensor boards 232, 234, showing respectively, a bottom perspective view and a close-up top view of the first sensor board 232. The first 232 and second 234 sensor boards generally comprise a flexible multi-layer dielectric sheet 270 (e.g., polyimide) and a rigid frame 272 (e.g., FR-4 epoxy glass laminate) that is bonded to the periphery of the dielectric sheet 270. Electrically conductive traces 274 are embedded on top 276 or bottom surfaces of the dielectric sheet 270, or between layers of the flexible sheet 270, forming a double-sided flex circuit 280. Each sensor 106 is mounted on the top surface 276 of the flex circuit 280, and leads 282 on the sensors 106 are connected

to conductive traces 274 that terminate at a standard card edge connector 284. Conventional ribbon cables can be used to link the card-edge connector 284 with peripheral recording and control devices (not shown) allowing communication between the sensors 106 and the peripheral devices.

On Page 16, line 30, please replace "288" with -- 248 -- such that the clean version of the paragraph reads:

Referring to Fig. 6-8, threaded holes 248, 290 in the upper 236 and lower 238 support plates are sized to receive set-screws 292 that the PDMA 100 can use to pre-load each of the sensors 106 mounted on either the first 232 or second 234 sensor boards. As noted in the description of Fig. 4, the flexure strips 150 used to align the probes 104, are compliant for displacements normal 114 to the plane containing the array 230, but are mechanically stiff for displacements in other directions. Moreover, the effective spring constants of the flexure strips 150 are substantially less than the spring constants of the sensors 106 so that the flexure strips 150 ordinarily exert minimal influence on the measured responses of the array 230 to protrusions. However, since the sensors 106 are mounted on the flex circuit 280, the set-screws 292 can apply a force to the stiffeners 286 and the sensors 106 in absence of a force on the test fixture 118. A force recorded by the sensors 106 will therefore be the sum of the force acting on the test fixture 118 and the pre-load force. Since many commercial force sensors can detect only tensile or compressive loads, pre-loading permits a compressive sensor to detect small tensile loads, or a tensile sensor to record small compressive loads, expanding the capabilities of the PDMA 100. Note that the lower support plate 238 and the second sensor board 234 both include unthreaded holes 294, 296 that provide access to the set-screws 292 in the upper support plate 236.

On Page 22, line 26, please replace "Serial No. ___________" with -- Serial No. 09/939,252 -- such that the clean version of the paragraph reads:

Fig. 10 shows a perspective view of another instrument suitable for screening, and specifically, an automated rapid serial system (ARSS) 500 that can be used to conduct high throughput fabric handle screening of an array of fabric samples by measuring responses of the array samples to protrusions. The ARSS 500 can be configured for use with parallel, serial or serial-parallel protocols. In a most preferred embodiment, the ARSS 500 can be configured for use in a rapid serial fashion with a high sample screening throughput. Detailed description of the ARSS 500 is described in commonly owned and co-pending U.S. Patent Application Serial No. 09/939,252 titled "High Throughput Mechanical Rapid Serial Property Testing of Material Libraries," (P. Mansky) filed on August 24, 2001, which is herein incorporated by reference. Generally, ARSS 500 includes a variety of robotic instruments for automatically or programmably providing predetermined motions for protruding an array of fabric samples 502 according to a predetermined protocol. ARSS 500 may be adapted or augmented to include a variety of hardware, software or both to assist it in determining the fabric hand of the array members. Hardware and software for augmenting the robotic systems may include, but are not limited to, sensors, transducers, data acquisition and manipulation hardware, data acquisition and manipulation software and the like. Exemplary robotic systems are commercially available from CAVRO Scientific Instruments (e.g., Model NO. RSP9652) or BioDot (Microdrop Model 3000).

On page 24, lines 28, 30 and 31 and on page 25, line 2, please delete the reference numeral "514" such that the clean version of the paragraph reads:

The ARSS 500 includes actuator(s) for moving the probe(s) 512 and the samples 502 in relation to each other. In one preferred embodiment, the actuator is attached to the probe 512 and the samples 502 remain stationary. In another preferred embodiment, the actuator is attached to the sample holder 504 and the probe 512 remains stationary. In yet another preferred embodiment, both the probe 512 and the sample holder 504 have actuators attached allowing both of them to translate.